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EVERY 5 TO 10 YEARS, several federal agencies, professional associations, private organizations, and industries work together to conduct a survey of the recreational interests of the American people—the National Survey on Recreation and the Environment (NSRE). The most recent of these national studies indicated that 94.5 percent of people 16 years old or older participate in some

form of outdoor recreation. Walking for pleasure, sightseeing, picnicking, swimming in natural waters, fishing, bicycling, and watching birds are among the most popular of the outdoor activities pursued in the late 1990s. All these activities involve participation by more than 25 percent of the country's population. Based on results from the two most recent surveys, growth of participation in most recreational activities from 1983 to 1995 exceeded growth of population. Of the activities tracked, birding, hiking, backpacking,

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downhill skiing, and primitive camping were the five fastest-growing activities in the country in terms of percentage change in the number of participants between 1983 and 1995.

In this article, we present an indepth look at the growth of one of these activities, birding. Not only do we look at trends in birding, we also examine where most of the growth is occurring, who birders are, what their outdoor personality tells us, and who is responsible for most of the growth in birding participation. Our primary source of data is the 1995 NSRE (Cordell 1996). The NSRE is due to be run again in the year 2000 to update trends in outdoor recreation as we enter the next millennium.

### The National Growth Trend

Measured in millions of persons reporting participation, the eight most popular activities in rank order in 1983 were: walking for pleasure, picnicking, sightseeing, fishing, bicycling and swimming in natural waters (these two tied for fifth most popular), motor boating, developed camping, and day hiking. Thirteen years later, in 1995, the order of the most popular activities shifted somewhat and some new activities made it to the list. Walking for pleasure remained as the number one activity, sightseeing moved up to second from third place in 1983, picnicking fell from second in 1983 to third in 1995, swimming in natural waters moved from fifth up to fourth, fishing fell from fourth to fifth, bicycling fell from fifth to sixth, birding (not even among the top eight in 1983) entered as seventh, and day hiking remained eighth. Not only is birding growing the fastest of all outdoor recreation activities tracked between the 1980s and the 1990s, it is moving toward attaining the status as one of American's most favored activities.

The growth between 1983 and 1995 in both percentage of the population (of 16 and older persons) and millions of people participating in birding has been dramatic (Figure 1). We use the term "birding" here to include all kinds of birdwatching regardless of the level of skill or dedication to the activity. (We describe "enthusiasts," those who come closest to the ABA-member profile, later in this article.) As we defined it, a

person could report having participated in birding if she or he participated at least once during the preceding 12 months covered by each of the two surveys, either at home or at some other location. From just over 21 million in 1983, the number of people 16 or older who reported that they participated in birding grew to over 54 million in 1995. This meant that the percentage of the population that reported participating in birding more than doubled in just 13 years, going from 12 percent in 1983 to 27 percent in 1995.

All of us have differing perspectives about trends in the various regions of the country. Usually, those perceptions are greatly influenced by where we grew up. The author listed first on this article is from the South (North Carolina), the second is from the West Coast (California), and the third is from the Northeast (Connecticut). Regardless of the regional diversity of our roots, however, none of us could have guessed that the region with the largest and most rapid growth in birding participation would be the South. Of the national increase of almost 33 million persons newly reporting they had participated in birding, almost 40 percent of that growth, an increase of 13.1 million, occurred in the South. The growth in millions of people participating in birding was nearly the same in the other three regions at between six and seven million additional participants each (Figure 2). But in terms of percentage growth, the regions were quite different, with the Midwest growing slowest (93 percent), the Northeast growing

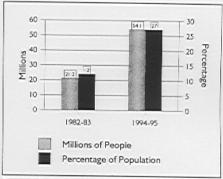


Figure 1. Birding on all levels grew significantly in the thirteen years between 1982 and 1995. In 1982, 21.2 million Americans (ages 16 or older) were estimated to be at least casual birders. By 1995 that number had grown to 54.1 million or 27 percent.

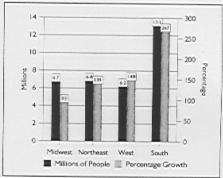


Figure 2. From 1982 to 1995, the South showed the greatest growth in birding at 267 percent (40 percent of the total U.S. growth in birding). The increase in the number of birders in the Midwest, Northeast, and West was 6 to 7 million people each, although, using percentages, the Midwest increased only 93 percent, compared to the Northeast at 139 percent and the West at 148 percent.

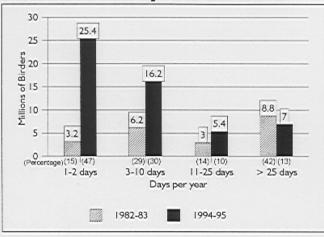


Figure 3.Although the number of people participating in birding dramatically increased between 1982 and 1995, the average number of days per year per birder showed a decrease from 1982. This decrease was a reflection of the large number of new birders. The number of people who birded 3 to 10 days annually (new birders) tripled, while the number of people who birded 11 to 25 days per year remained about constant.

next slowest (139 percent), and the West growing second fastest at 148 percent (the West as defined here extends generally from the Rockies to the Pacific Coast).

While the number of people reporting they participated in birding seemed to explode in the 13 vears between 1983 and 1995, the average number of days per year a person participated in birding showed a dramatic shift of a different sort. In 1983, 42 percent of birders (8.8 million) put in more than 25 days per year (a day equals participation for any amount of time on a given day), while only 15 percent (3.2 million) participated just one to two days per year (Figure 3). By 1995, that pattern of participation had reversed itself to the point that nearly half the birders participated just one to two days per year (15.4 million) while only 13 percent participated on more than 25 days per year (7.0 million). This shift was not so much an actual loss in the number of birders who put in more than 25 days a year, as it was a reflection of the very rapid rise in the number of persons new to birding who participate just a few times per year. The number participating 3 to 10 days annually almost tripled while the

number participating 11 to 25 days per year remained about constant between 1983 and 1995.

# Who Are the Birders and Has Their Composition Changed?

As a first cut at understanding who birders are, we compared those who reported participating in birding in the 1995 survey with those who did not participate. This comparison revealed that higher percentages of birders than non-birders are female (56 versus 51 percent), are between the ages of 40 and 59 (34 versus 25 percent), are college educated (34 versus 26 percent), are white (86 versus 80 percent), are from 2-person households (37 versus 29 percent), are retired (45 versus 39 percent) and are homemakers (49 versus 39 percent). On the other hand, smaller percentages of birders than non-birders are between 16 and 24 years old (10 versus 20 percent), have less than a high school education (8 versus 15 percent), and are unemployed (10 versus 26 percent).

Growth in numbers of participants in birding was split among various demographic groups. As shown, the majority of growth was by females, 25 to 59 years old, persons with a high school diplo-

ma (followed by persons with college education), Caucasians, and people earning S50,000 or more per year (Figure 4). Across these groups accounting for the majority of growth, the greatest percentage increase in participants came from one- to two-person households with two to three vehicles, living in urban counties.

Coincidentally, demographics here correspond with a Baby Boom generation coming of age, a bulge in the population seeking increased leisure activities.

### Where Birders Fit Among Outdoor "Recreation Personalities"

Our 1995 NSRE asked over 17,000 people throughout the U.S. about their involvement in over 80 outdoor activities. We ran an analysis across all respondents to see if different groups of people emerged showing different patterns in their choices among the 80+ activities we tracked. Different groups thus identified were referred to as "recreation personalities." Once identified, we then looked to see where birding fit as an activity of choice among these recreation personalities.

Demographic	•		Proportion	
Group	Millions	Percentage	of Growth	
Male	14.2	149.5	43%	
Female	18.7	159.8	57%	
16-24	1.0	21.3	3%	
25-39	11.1	185.4	34%	
40-59	12.9	226.3	39%	
60+	7.9	82.4	24%	
<hs< td=""><td>1.3</td><td>46.4</td><td>4%</td></hs<>	1.3	46.4	4%	
HS Diploma	18.5	145.7	56%	
College	13.0	228.1	40%	
Caucasian	26.3	128.9	88%	
African-American	3.7	462.5	12%	
<\$25,000	-1.6	-12.6	-6%	
\$25-\$49,000	10.4	152.9	32%	
\$50,000+	24.0	1,263.2	74%	

Figure 4.The majority of growth in birding was by females, people between 25 and 59, high school graduates with no college, Caucasians, and high income earners.

Seven recreation personalities were identified. They included:

The Sports Hogs
The Fitness Buffs
The Nature Lovers
The Outdoor Avids
The King Fishers
The Passives
The Do Nothings

The Sports Hogs are those who are active in individual and team sports, participate in winter sports, attend sports events, and who boat and swim. The Fitness Buffs are those who run, walk, bike, and swim (none hunt or fish). Nature Lovers like to walk, go birding, watch wildlife, fish, engage in outdoor photography, and go outdoors for other nature study. Outdoor Avids chose fishing, hunting, camping, boating, walking, hiking, viewing/learning activities, and going birding. This group, in fact, was into most of the 80 activities we asked about. The King Fishers attend family gatherings, go to the beach, and especially, they fish. The Passives don't participate in many activities, particularly the physically challenging ones, but when they do recreate, they tend toward family gatherings, walking, sightseeing, and going to the beach. The

Do Nothings are not very active in outdoor activities at all and include a number of the elderly among their ranks.

Birding was a prominent pursuit among just two of the seven outdoor recreation personalitiesthe Outdoor Avids and the Nature Lovers. Yet, even though these personalities share birding as an activity of choice, they are in other ways very different. The Outdoor Avids are mostly middle-aged, Caucasian, and male with a college education and relatively high incomes. They live in two-person households with no kids and they like to attend family events out of doors, attend sports, visit historic sites and watch wildlife. They also are very active in camping, hunting and fishing. In addition, 65 percent of Outdoor Avids are into birding. Nature Lovers, on the other hand, are mostly well-off, highly-educated, older women who live in small households with no kids and who like to picnic, walk, sightsee, visit nature centers and watch wildlife. Seventy-four percent of Nature Lovers are birders; few of them hunt or fish. Birding was not a prominent activity among the other five outdoor personalities.



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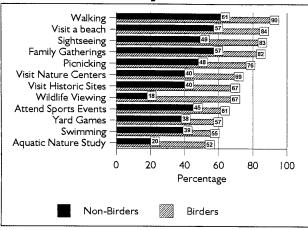


Figure 5. On average more birders are active in a variety of outdoor recreational activities than non-birders. The dark solid bar in the illustration indicates the percentage of non-birders who participate in each of the 12 activities listed. The striped bar is the percentage of birders who participate in the activities listed.

### **More About Birders**

As is true of practically anyone who favors one particular recreational activity, most also enjoy the outdoors by participating in other activities. When the percentages of people who reported participating in birding in the 1995 survey were compared with those who reported they did not participate in birding (i.e., non-birders), we concluded that in general a much higher percentage of birders are active in a variety of other outdoor recreation pursuits as compared to people who do not bird (Figure 5). Our focus was on identifying other outdoor activities in which more than half of all birders reported participation. Across all 12 activities, much higher percentages of birders than non-birders participated. For example, 61 percent of non-birders walk and 57 percent visit beaches, but 90 percent and 84 percent, respectively, of birders participate in these two activities. Comparisons across the other 10 activities reveals a similar pattern of greater participation by birders. That pattern is particularly noticeable for wildlife viewing and aquatic nature study (appreciating and studying natural features, plants and animals at water sites) where the percentages of birders participating is two to three times higher than the percentages of nonbirders.

Looking further at the recreation participation patterns of birders, we examined in more detail which outdoor activities birders chose in addition to birding. The additional outdoor activities birders identified were listed separately by the percentage reporting participation (Figure 6). The first list shows the less favored activities in which fewer then 33 percent of birders participated. This list includes a number of active sports, both land and waterbased, competitive as well as nature-based, and includes hunting, which is not on either of the other two lists. None of the activities in this first list focuses on viewing and learning about wildlife, nature or history. The second list in the illustration below shows additional activities in which 33 to 45 percent of birders participate. In this list there are many more passive activities like picnicking, outdoor family gatherings, outdoor concerts, sightseeing, and yard games. Also included are a number of trail-use activities, such as horseback riding, hiking, backpacking, and snowmobiling. In the third list, including the activities in which 45 percent or more of birders participate, an interesting list of the five activities most favored by birders is shown. Three of these are nature-appreciation/ nature-study activities; two are back-country adventure activities. It is not surprising that many birders share an interest in nature study activities and in outdoor activities that take them away from roads and developed recreation sites. Their outdoor personalities, as described earlier, prominently include nature study, and the activity of birding itself beckons people to out-of-the-way places where birds and their habitat are less disturbed and bird calls can more easily be heard.

# Where Birding Takes Place

As reported earlier, participation in birding has risen from around 12 percent of Americans in 1983 to 27 percent in more recent years. Most Americans who enjoy birding do so at home (Figure 7). Almost 20 percent of Americans bird in environs at or near their homes. Another 4.6 percent (over nine million people) bird mostly at home, but also take a few trips away from home specifically for birding. The more dedicated birders take five or more trips each

Golf Handball Fish Viewing Cross-country Sl Orienteering Nature Study Fish Country Sl Orienteering Nature Study Family Gatherings Rock Climbing Yard Games Hunting Visiting Nature Centers	Fewer Than 33%	<u>33-45%</u>	45% or More
Water Skiing   Visiting Historic Sites     Jet Skiing   Historic Sites     Hiking   Backpacking     Pool Swimming   Developed Camping     Mountain Climbing     Ice Skating     Snowmobiling     Off-Road Driving     Sightseeing     Fishing     Boating     Snorkeling     Snorkeling	Golf Tennis Team Sports Soccer Bike Touring Rock Climbing Hunting Downhill Skiing Water Skiing Jet Skiing Snowboarding Rafting	Handball Biking (any style) Horseback Riding Picnicking Family Gatherings Yard Games Visiting Nature Centers Attending Outdoor Concerts Visiting Historic Sites Hiking Backpacking Developed Camping Mountain Climbing Ice Skating Snowmobiling Off-Road Driving Sightseeing Fishing Boating	Cross-country Skiing Orienteering

Figure 6. In addition to the 12 activities listed in Figure 5, birders participate in a variety of other recreational activities, which are listed as least (less than 33 percent) to most (45 percent or more) popular.

year from home for birding. This involves 2.9 percent of Americans, roughly six million people 16 or older. Among those who demonstrate their dedication to birding by taking five or more trips per year specifically for birding, however, some further differences emerge. Mainly, these differences show that a much higher percentage of dedicated birders are female (nearly 60 percent) and many fewer of them are under 25. For over 80 percent of birders, the greatest barrier to participating more, or even as much as they would like, is lack of time. Only one-third indicated lack of money as a significant barrier to participation.

### **Birding Enthusiasts**

As just noted, people involved in birding can differ a great deal in their level of dedication to the activity. One measure of their level of dedication is the number of trips they take from home specifically to go birding. This obviously takes a bit more effort than looking outside to see "who" is at the feeder. But, perhaps an even better measure is the number of days during which one spends some time birding over the course of a year. Using birding days per year as a measure, we examined birders

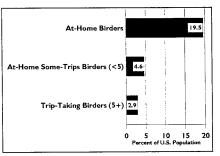


Figure 7. Most birders (19.5 percent of the U.S. population) enjoy birding near their home, while 4.6 percent of the population (more than 9 million) take a few birding trips away from home. Those taking five trips or more per year represent 2.9 percent of the population (about 6 million people).

	Numb	Number of Days/Year		
Characteristics	1-5	6-50	>50	
Female	52.9	53.6	62.2	
*Ago				
16-24	18.7	8.6	4.9	
25-39	39.0	32.3	25.9	
40-59	30.4	36.1	35.9	
60+	12.0	23.0	33.3	
*Education				
Finished HS	56.4	53.4	63.4	
4+ Years College	34.7	39.3	30.5	
*Race				
Caucasian	82.2	89.0	89.8	
African-American	9.9	7.1	7.6	
Others	7.8	3.9	2.	
Income				
\$5,000-14,999	4.9	6.5	6.	
Over \$50,000	46.7	49.9	49.0	
*Population of Resident County				
Under 25,000	6.9	6.4	9.4	
25,000-99,999	20.1	22.0	28.	
100,000-999,999	53.1	52.8	47.8	
1,000,000+	19.9	18.8	14.	

Figure 8. There are varying levels of birding participation among demographic groups, which we compared by the annual number of days of birding. Three levels of participation were identified, I to 5 times per year, 6 to 50 times per year, and over 50 times per year. Income was similar between the three groups, however, in the 50-or-more group (birding enthusiasts), there were higher percentages who are females and who are 60 years or older.

by three levels of enthusiasm and looked for differences in demographic characteristics between these three levels (Figure 8). Those who participate least are the most numerous (participating one to five times per year), and those who participate most are the least

numerous (participating more than 50 times per year). We call those who participate 50 or more times per year "birding enthusiasts." (Clearly, we are getting closer to those birders who fit the typical ABA-member profile.) In our studies we found that the demo-

Private:	59.1%	Public:	40.9%
Own Land	8.7	Local/State Park	45.6
Someone Else's	19.9	National Forest	7.5
Resort	47.4	National Park	7.0
Reservoir/Lake	0.9	NWPS	3.5
Other	23.1	Reservoir/Lake	6.4
. 1		Other Waterside	6.1
		Other	15.8
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Figure 9. Birding enthusiasts take 17.7 trips per year in contrast to other birders who take 1.4 trips per year. The highest percentage (59.1) of enthusiasts bird in private areas with resort areas the most frequent destination. When enthusiasts bird in public areas, local or state parks are popular destinations.

graphics of enthusiasts differ in some significant ways from other birders (Figure 8). A higher percentage are female; a much higher percentage are over 60 years of age; a higher percentage have finished high school but have not attended college (in fact, many fewer have attended college); and smaller percentages are African-American or other non-Caucasian races. There is hardly any difference in income between enthusiasts and other birders, but a significantly higher percentage live in less populated counties—counties with less than 100,000 people and especially counties of less than 25,000 population.

Similarities between this and other recent studies of birders are comforting to survey-takers and analysts. But even the differences between this and other studies of birders are of interest. These differences will be taken up under our Closing Remarks.

As it turns out, birding enthusiasts not only put in more days of bird watching than other birders, but they also take many more trips per year for birding. We have defined a birding trip as traveling more than 15 minutes from home specifically to view birds. Birding enthusiasts take on average 17.7 such trips from home per year

while other birders average only 1.4 trips per year. Often, birding enthusiasts take their birding trips alone. However, some also travel with others on their birding trips. Nearly three percent of birding trips by enthusiasts are taken with groups of 20 or more others. About 6.5 percent of enthusiasts' trips are taken with 10 or more others. Fifty-nine percent of birding trips for enthusiasts are to private areas while about 41 percent are to public areas (Figure 9).

Of those trips taken to private areas, almost 29 percent are either to their own land or to another person's land where the owner is usually someone they know. Just over 47 percent of birding trips to private areas are taken to a destination where there is a resort or similar overnight accommodations. Of trips taken to public areas, the most frequently reported destination is a local or state park or forest. The second most frequently reported destination is a national forest, followed closely by a national park. Of all trips by enthusiasts, over 87 percent are taken by car, truck, or van. Just over four percent of enthusiasts fly, almost three percent travel by bus, and about two percent travel by motorhome or camper.

### **Closing Remarks**

Baicich, Butcher, and Green (1998) pointed out the dramatic nature of the changes occurring in birding in the United States. They noted the growing numbers of residential bird feeders in the U.S., estimated at 63.1 million in 1991, and the tremendous growth in number of people participating in the Christmas Bird Counts. Other evidence of the growing interest in birding is in the rising number of birding specialty stores, bird magazines, and birding festivals (e.g., DeCray et al. 1999). The American Birding Association membership itself has gone up almost 60 percent since 1994 and 100 percent since early 1992 (ABA figures and Gabbard 1998).

Surveys of the population at large and at sites favored by birders to determine who is interested in birding have shown that while high incomes and high levels of education continue as dominating characteristics of birders (Kerlinger and Eubanks 1995, Eubanks, Kerlinger, and Payne 1993), other demographics of birders seem to be changing. Obviously, a large portion of the growth in birding as reported here is the result of new interest on the part of additional segments of society. One obvious new segment, grow-

### The Profile of ABA Members Compared to NSRE Enthusiasts

Profile Characteristic	ABA Member	NSRE Enthusiasts
Male	65%	38%
under 40	17%	31%
40 to 59	52%	36%
60 and over	33%	31%
with no college	20%	70%
with college degree	80%	30%
earning over \$50,000	67%	50%
birding 50 days+	39%	32%

When the characteristics of ABA members (as profiled in the last ABA membership survey taken in 1994) are compared to those of NSRE enthusiasts (surveyed in 1995), we see some differences. Interestingly, ABA members include much higher percentages who are male, between the ages of 40 and 59, college educated, and who earn over \$50,000 per year. Educational attainment is one of the biggest differences between the typical ABA member and the "birding enthusiast" as we have described them in this article (i.e., birders who bird 50 or more days per year).

ing fast in interest and participation, is women. A comparison of ABA membership profiles between 1975 and 1994 showed the percentage of members who are women went from 22 percent in 1975 to 26 percent in 1989 and emerged at 35 percent in 1994 (Bartels 1994).

Our 1995 NSRE shows that nationwide, among all people who participate in some way in birding, 56 percent are female. The survey and analysis also showed that people who participate in birding belong to one of two recreation personalities. The first is the Outdoor Avids who are mostly males with high incomes and college educations. This profile fits well the historic profile of ABA members and profiles from other surveys, such as Wiedner and Kerlinger's survey of participants in the Christmas Bird Count in 1988. The second personality is the Nature Lovers among whom many more are female. While we didn't ask about membership in birding or other outdoor associations, one might safely speculate that the strong growth in ABA membership on the part of women points to a membership that will increasingly include members who not only like to go birding, but who also like to go picnicking, walking, sightseeing, visiting nature centers, and watching wildlife of a number of species.

It will be interesting to see if the next ABA membership survey shows an infusion of "mostly well-off, highly educated, older women who live in small households with no kids." We might also speculate that there will be growing numbers of younger birders in future years as compared to past decades. More and more birding seems to be an activity of choice across a wider cross-section of American society.

If there are similarities between the NSRE data and other studies of enthusiastic birders—such as a rough gender balance (as compared to, say, another popular outdoor activity, fishing), fairly high incomes, and number of trips per year—there also are differences. For example, education levels seem slightly lower and minority participation seems higher among NSRE enthusiasts. (For other differences concerning ABA Member profiles in particular, see the chart above.)

These differences may mostly be due to the different ways NSRE and other studies were carried out. The other studies, vital and enlightening though they are, have a degree of self-selection in them. They are surveying those who are already dedicated to birding as a pastime. (These other studies, for example, have often focused on birding hotspots or surveys of bird-oriented organizations.) Moreover, the NSRE survey entails an element of forecasting; a larger and more broadly representative portion of the population is surveyed, birder and non-birder alike. We are likely to feel the vibrations through the NSRE before they actually reach the local bird specialty store, birding festival, bird club, or ABA, in that probable order. Indeed, some of the shifts in demographics of birders described in this article may yet take a few years to reach the centers of dedicated birding activities. The next NSRE survey should give us a much better picture of how much of a shift has been taking place.

With increasing numbers of birders, comes a need for taking increasing responsibility as well. This includes taking responsibility to speak out and help fund efforts to conserve habitats for birds, which also will mean continued quality birding opportunities. This also includes taking responsibility to participate in birding in ethical and environmentally sensible ways. Those who enjoy or are learning to enjoy birding must be careful not to let sheer numbers

harm that which we treasure. This includes showing respect for private property, where a significant amount of birding occurs, and respecting the needs of birds for space and undisturbed habitat, particularly in breeding seasons.

Birders can be a very powerful force in helping to secure and manage bird habitat and our natural resources in general. Increasing numbers and interest in birding should reflect more people willing and eager to be active in the stewardship of our natural resources. One way that stewardship can be pursued is to get involved in citizen science, drawing upon the energy, enthusiasm, and knowledge of people who care. There is no better formula for success than to engage people who care about that which they study. As we all learn more about the synergy and benefits to be gained when agencies, associations, and citizens

work together for the long-term health and sustainability of the country's natural heritage, we believe we will see an increasingly important role for citizen science.

The next National Survey on Recreation and the Environment, NSRE 2000, will be started in April 1999, and will run for at least one year. We survey over the course of a year to assure asking people about their outdoor recreation throughout all seasons of the year, and we will explore in even greater depth the growing popularity of birding. Perhaps we can report back to you soon what we have found. In the meantime, if you are interested in seeing some of the results from the 1995 NSRE, you may go to either or both of two web sites:

www.outdoorlink.com/infosource/nsre

www.fs.fed.us/research/rvur/recreation

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